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INTERNATIONAL SEARCH REPORT

International application No.

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A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) : E21B 43/10

US CL : 166/380, 207

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 166/380, 207, 378, 212, 217, 242.6

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 6,070,671 A (CUMMING et al.) 06 June 2000 (06.06.00), figures 1 and 2.	13-15,17,18,21-23,25-31, and 33
X	US 6,085,838 A (VERCAEMER et al.) 11 July 2000 (11.07.00), figures 5-7.	1,4-7,11-19, and 21-35
X	SU 1086118 A (GARIFOV) 15 April 1984 (15.04.84), figures 1 and 2.	13-15,17-23,25-31, and 33-36

Further documents are listed in the continuation of Box C.



See patent family annex.

Special categories of cited documents:	"T"	later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
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